

What is claimed is:

1. A zoom lens system comprising a positive first lens group, a negative second lens group, a positive third lens group, and a positive fourth lens group, in this order from
5 an object,

wherein upon zooming from the short focal length extremity to the long focal length extremity, all said lens group are movable in a manner that the distance between said positive first lens group and said negative second
10 lens group increases, the distance between said negative second lens group and said positive third lens group decreases, the distance between said positive third lens group and said positive fourth lens group increases, and the distance between said positive first lens group and
15 said positive third lens group does not change;

wherein upon zooming from the short focal length extremity to the long focal length extremity, said positive fourth lens group first moves toward an image and thereafter moves toward said object in a U-turn path; and
20 wherein said zoom lens system satisfies the following condition:

$$0.02 < \Delta X_4 / f_w < 0.2$$

wherein

f_w designates the focal length of the entire the zoom
25 lens system at the short focal length extremity; and

ΔX_4 designates the traveling distance of said positive fourth lens group when the focal length f_w changes to " $1.5 \times f_w$ " under the condition that movement of said positive fourth lens group toward the image, from a position thereof at the short focal length extremity as a reference point, is defined as a positive direction.

2. The zoom lens system according to claim 1, wherein said negative second lens group is arranged to move toward said image upon zooming from the short focal length extremity to the long focal length extremity.

3. The zoom lens system according to claim 1, wherein the zoom lens system satisfies the following conditions:

$$0.5 < |f_2|/f_3 < 1$$

$$2 < m_{3t}/m_{3w} < 4$$

wherein

f_2 designates the focal length of said negative second lens group;

f_3 designates the focal length of said positive third lens group;

m_{3t} designates the paraxial lateral magnification of said positive third lens group when said object at an infinite distance is in an in-focus state at the long focal length extremity; and

m_{3w} designates the paraxial lateral magnification of said third lens group when said object at an infinite

distance is in an in-focus state at the short focal length extremity.

4. The zoom lens system according to claim 1, wherein said positive first lens group comprises a negative lens
5 element and a positive lens element; and

wherein said positive fourth lens group comprises a positive lens element.

5. The zoom lens system according to claim 1, wherein said positive third lens group comprises two positive lens
10 elements and one negative lens element.

6. The zoom lens system according to claim 1, wherein focusing is performed by moving said positive fourth lens group.

15

20